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### NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 03/12/2008

03/12/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 EXAMINER

LOEWE, ROBERT S

ART UNIT PAPER NUMBER

1796 DATE MAILED: 03/12/2008

 APPELICATION NO.
 FILINO DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFRMATION NO.

 10/577/948
 09/11/2006
 Katsushiko KOMURO
 290488USOPCT
 5254

TITLE OF INVENTION: METHOD FOR PRODUCING CYCLIC ORGANIC SILICON COMPOUND AND ORGANIC SILICON RESIN HAVING ALCOHOLIC HYDROXYL GROUP

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/12/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This appropriate. All further c indicated unless correcte maintenance fee notificat	form should be used for correspondence includir d below or directed oth ions.	or transmitting the ISS og the Patent, advance nerwise in Block 1, by	SUE FEE and PUBLICAT orders and notification of (a) specifying a new corre				
CURRENT CORRESPONDE	NCE ADDRESS (Note: Use Bi	ock 1 for any change of address		te: A certificate of r (s) Transmittal. This ers. Each additional e its own certificate			domestic mailings of the r any other accompanying t or formal drawing, must
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							(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.
10/577,948	09/11/2006	•	Katsuhiko KOMURO		29048	88USOPCT	5254
ALCOHOLIC HYDROX			RGANIC SILICON COM				
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TO	OTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740	06/12/2008
EXAMI	INER	ART UNIT	CLASS-SUBCLASS	]			
LOEWE, R	OBERT S	1796	528-037000	•			
"Fee Address" indi- PTO/SB/47; Rev 03-02 Number is required.  3. ASSIGNEE NAME AN	ondence address (or Cha v/122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DATA cas an assignee is ident in 37 CFR 3.11. Comp	inge of Correspondence  "Indication form led. Use of a Customer  A TO BE PRINTED ON	2. For printing on the, (I) the names of up to or agents OR, alternat (2) the name of a sing registered attorney or 2 registered patent att listed, no name will be THE PATENT (print or ty e data will appear on the 1) T a substitute for filing an (B) RESIDENCE: (CIT	o 3 registered patent wely, le firm (having as a agent) and the name orneys or agents. If n printed.	member a s of up to so name is	23iffied below, the do	cument has been filed for
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Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies			th. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)  ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby suthorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
	SMALL ENTITY state	as. See 37 CFR 1.27.	☐ b. Applicant is no los				
interest as shown by the n	ecords of the United Sta	ites Patent and Trademar	ed from anyone other than rk Office.	tne applicant; a regis	tered attor.	rney or agent; or the	e assignee or other party in
Authorized Signature			Date				
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This collection of informs an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi Alexandria, Virginia 2231	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this but reginia 22313-1450. DC (3-1450.	EFR 1.311. The informat U.S.C. 122 and 37 CFF USPTO. Time will var rden, should be sent to t O NOT SEND FEES OR	ion is required to obtain or R 1.14. This collection is es y depending upon the indi the Chief Information Offic COMPLETED FORMS T	retain a benefit by th timated to take 12 m vidual case. Any cor er, U.S. Patent and 1 O THIS ADDRESS.	ne public wanter to comments on frademark of SEND TO	which is to file (and complete, including in the amount of tim Office, U.S. Depa O: Commissioner f	by the USPTO to process) gathering, preparing, and the you require to complete etiment of Commerce, P.O. or Patents, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/577,948	09/11/2006	Katsuhiko KOMURO	290488US0PCT	5254	
22850	22850 7590 03/12/2008		EXAMINER		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LOEWE, ROBERT S		
			ART UNIT	PAPER NUMBER	
			1796		

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 122 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 122 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/577,948	KOMURO ET AL.	
Examiner	Art Unit	
DOBERT LOEWE	1706	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-ative

All claims being allowable, PROSECUTION ON THE MERTS IS (OR herewith (or previously mailed), a Notice of Allowance (PTOL-85) or of NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHT: of the Office or upon petition by the applicant. See 37 CFR 1.313 and	her appropriate communication will be mailed in due course. THIS S. This application is subject to withdrawal from issue at the initia
<ol> <li>This communication is responsive to <u>5/2/06</u>.</li> </ol>	
2. The allowed claim(s) is/are <u>1-3</u> .	
3.	n received.  n received in Application No  nts have been received in this national stage application from the
4. A SUBSTITUTE OATH OR DECLARATION must be submitted. INFORMAL PATENT APPLICATION (PTO-152) which gives rea	
CORRECTED DRAWINGS ( as "replacement sheets") must be a (a) including changes required by the Notice of Draftspersons' and the control of Draftspersons and Draftsper	Patent Drawing Review ( PTO-948) attached  endment / Comment or in the Office action of  should be written on the drawings in the front (not the back) of  ader according to 37 CFR 1.121(d).  BIOLOGICAL MATERIAL must be submitted. Note the
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO/SB/08).	Notice of Informal Patent Application     Interview Summary (PTO-413),     Paper No./Mail Date     ⊠ Examiner's Amendment/Comment

- Paper No./Mail Date <u>9/8/06</u>

  4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other \_\_\_\_\_.

Application/Control Number: 10/577,948 Page 2

Art Unit: 1796

## EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Jacob Doughty on 21-Feb-08.

The claims have been amended as shown below. The amended claims below are to replace all previous versions of the claims.

Claim 1: A method for producing a cyclic organic silicon compound represented by the general formula (3) below, comprising reacting an olefin represented by the general formula (1) below and an alkoxysilane represented by the general formula (2) below in the presence of a catalyst comprising a transition metal;



wherein:

Z is alkenyl group having carbon atoms from 2 to 5 where the terminal carbon atom  $C_{\rm E}$  distant from the carbon atom to which the hydroxyl group is bonded forms a carbon-carbon unsaturated bond:

R is methyl group or hydrogen atom; and

Application/Control Number: 10/577,948 Page 3

Art Unit: 1796

Me is methyl group;

$$\begin{array}{c}
\mathsf{OR}_2\\ \\
\mathsf{R}_1 & \mathsf{Si} & \mathsf{OR}_2\\ \\
\mathsf{H}
\end{array}$$
(2)

wherein:

R<sub>1</sub> is alkyl group or alkoxyl group, having carbon atoms from 1 to 3;

R2 is alkyl group having carbon atoms from 1 to 3; and

the plurality of R2 may be the same as or different from each other; and

$$R_1$$
— $Si$ — $O$ 
 $Z'$ — $Me$ 
 $R_1$ — $Si$ — $O$ 
 $Si$ — $O$ 

wherein:

Z' is alkylene group having carbon atoms from 2 to 5, wherein said carbon-carbon unsaturated bond in said Z transformed into a saturated bond and said terminal carbon atom  $C_E$  in said Z binds to Si atom;

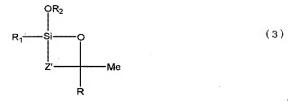
R is methyl group or hydrogen atom;

R<sub>1</sub> is alkyl group or alkoxyl group, having carbon atoms from 1 to 3; and

 $R_2$  is alkyl group having carbon atoms from 1 to 3.

Art Unit: 1796

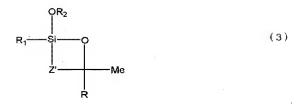
Claim 2: An organic silicone resin having an alcoholic hydroxyl group, which is obtained by performing hydrolysis and condensation of a cyclic organic silicon compound represented by the general formula (3) below, or of a mixture of the cyclic organic silicon compound and a polyfunctional alkoxysilane.



Claim 3: A method for producing an organic silicone resin having an alcoholic hydroxyl group, comprising performing hydrolysis and condensation of a cyclic organic silicon compound represented by the general formula (3) below, or of a mixture of said cyclic organic silicon compound and a polyfunctional alkoxysilane in an organic solvent while maintaining a concentration of a producing polymer at 30% by weight or less.

Application/Control Number: 10/577,948

Art Unit: 1796



# Reasons for Allowance

The following is an examiner's statement of reasons for allowance: Burns et al. (US Pat. 5,595,593) which is believed to be the closest prior art teaches a method for treatment of silica having surface hydroxyl groups with a cyclic siloxane. However, Burns et al. does not teach or suggest cyclic siloxanes which have the structural limitations of formula (3) of instant claim 1. Further, no prior art reference could be found which teaches or suggests a method of making compounds which meet the structural limitations of formula (3) of instant claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

# Conclusion

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./ Examiner, Art Unit 1796 21-Feb-08

> /Randy Gulakowski/ Supervisory Patent Examiner, Art Unit 1796